CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- At time of the Action: Claims 1-55.
- After this Response: Claims 20, 30, 41-52, and 55.

Canceled or Withdrawn claims: 1-19, 21-29, 31-40, 53, and 54.

Amended claims: 20, 30, 51, and 55.

New claims: none.

Claims:

1. (CANCELED)

2. (CANCELED)

3. (CANCELED)

4. (CANCELED)

5. (CANCELED)

6. (CANCELED)

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7. (CANCELED)

8. (CANCELED)

9. (CANCELED)

10. (CANCELED)

11. (CANCELED)

12. (CANCELED)

13. (CANCELED)

14. (CANCELED)

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19. **(CANCELED)**

20. **(CURRENTLY AMENDED)** ~~The method of claim 15,~~ A method of generating encrypted analog first, second and third signals (R', G', B', respectively) from first, second, and third analog input signals (R,G,B, respectively) the method comprising:

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pseudo-randomly generating at least one of a plurality of matrix coefficients, a1, a2, a3, b1, b2, b3, c1, c2, c3;

using an encryption circuit to perform a matrix multiplication operation to generate the encrypted analog first, second, and third signals, according to the following equations:

$$R' = a1R + b1G + c1B,$$

$$G' = a2R + b2G + c2B,$$

$$B' = a3R + b3G + c3B;$$

wherein the matrix coefficients are generated such that each of the R', G' and B' signals will be the product of summing two signals in the set of analog signals R, G, B and subtracting one of the signals in the set of analog signals R, G, B.

21. **(CANCELED)**

22. **(CANCELED)**

23. **(CANCELED)**

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24. (CANCELED)

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29. (CANCELED):

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30. (CURRENTLY AMENDED) ~~The method of claim 25,~~ A communication method comprising the steps of:

using a pseudo-random number generator to generate output values; and

modifying first, second and third signals, by performing a matrix multiplication operation thereon utilizing matrix coefficients which are a function of at least one of the pseudo-random output values, the modified first, second and third signals being encrypted analog signals so as to define first, second and third encrypted analog signals; and

transmitting the first, second and third encrypted analog signals to a destination device;

wherein said matrix multiplication involves summing an integer multiple of two of the first, second and third signals and subtracting an integer multiple of

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another one of said first second and third signals to produce the first encrypted analog signal.

31. **(CANCELED)**

32. **(CANCELED)**

33. **(CANCELED)**

34. **(CANCELED)**

35. **(CANCELED)**

36. **(CANCELED)**

37. **(CANCELED)**

38. **(CANCELED)**

39. **(CANCELED)**

40. **(CANCELED)**

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41. **(ORIGINAL)** A method of decrypting encrypted analog signals including the steps of:

generating a first decrypted analog signal from a first pair of encrypted analog signals by:

summing the two encrypted analog signals in the first pair of analog signals to produce a first sum; and

dividing the first sum by a first value to produce a first decrypted analog signal.

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42. **(ORIGINAL)** The method of claim 41, further comprising:

generating a second decrypted analog signal from a second pair of encrypted analog signals by:

summing the two encrypted analog signals in the second pair of analog signals to produce a second sum; and

dividing the second sum by a second value to produce a second decrypted analog signal.

43. **(ORIGINAL)** The method of claim 42, further comprising:

generating a third decrypted analog signal from a third pair of encrypted analog signals by:

summing the two encrypted analog signals in the third pair of analog signals to produce a third sum; and

dividing the 'third sum by a third value to produce a third decrypted analog signal.

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44. **(ORIGINAL)** The method of claim 43, wherein the first second and third values are the same.

45. **(ORIGINAL)** The method of claim 44, wherein the first second and third values are integer multiples of 2.

46. **(ORIGINAL)** The method of claim 44, further comprising the step of:

periodically changing the value used for the first, second and third values as a function of the output of a pseudo random number generator.

47. **(ORIGINAL)** The method of claim 41, further comprising:

comparing values in first and second rows of values to identify a first column of values in which the first and second rows of values include the same value; and

controlling which one of a plurality of output lines the first decrypted analog signal is transmitted on as a function of the identified column of values.

48. **(ORIGINAL)** The method of claim 43, further comprising:

comparing values in first and second rows of values to identify a first column in which the first and second rows of values include the same value;

comparing values in second and third rows of values to identify a second column in which the second and third rows of values include the same value, the second column being different than said first column;

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and

controlling which one of a plurality of output lines the first decrypted analog signal is transmitted on as a function of the identified first column and which one of the plurality of output lines the second decrypted analog signal is transmitted on as a function of the identified second column, the first and Second decrypted analog signals being transmitted on different output lines.

49. **(ORIGINAL)** The method of claim 48, wherein the first and second rows of values are first and second rows of values included in a permutation matrix used to encrypt the analog signals included in the first pair of signals.

50. **(ORIGINAL)** The method of claim 48, further comprising:

comparing, values in a third row of values and

said first row of values to identify a third column in which the third and first rows of values include the same value;

and

controlling which one of a plurality of output lines the third decrypted analog signal is transmitted on as a function of the identified third column, the third decrypted analog signal being transmitted on a different output line from said first and second decrypted analog signals.

51. **(CURRENTLY AMENDED)** The method of claim 49, wherein the first and second rows of values are first and second rows of values included in a permutation matrix used to encrypt the analog signals included in the first pair of signals;

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wherein the second and third rows of values are Second and third rows of values included in said permutation matrix; and

[[-]]wherein the third and first rows of values are third and first rows of Values included in said permutation matrix.

52. **(ORIGINAL)** The method of claim 48,

wherein the first, second and third decrypted analog signals are red, green and blue analog video signals; and

wherein the plurality of output lines include red, green and blue output lines which ere coupled to a display device.

53. **(CANCELLED)**

54. **(CANCELLED)**

55. **(CURRENTLY AMENDED)** ~~The method of claim 53,~~ A method of generating an encrypted analog signal from at least two of a first analog input signal, a second analog input signal, and a third analog input signal, the method comprising:

pseudo-randomly generating an encryption value;

multiplying a first one of said first, second, and third analog input signals with said encryption value to produce a multiplied signal; and

combining said multiplied signal with at least a second signal generated from a second one of said first, second, and third analog input signals to produce said encrypted analog signal;

wherein said encryption value is a matrix coefficient and wherein said

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matrix multiplication operation is performed using analog multipliers.

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